

Modifications of Library Manager for File Aggregation Feature.

Alexander Moibenko

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1 Library Manager Modifications.

Library manager needs modification for submitting requests to disk movers. There are 2 types of requests processed by library manager: write requests and read requests. Write request processing does not need modifications. Read request processing needs modification because in the current library manager implementation several movers may get tied up waiting for the staging of one package file if there are 2 or more requests for files belonging to this package.

Beginning with this revision the approach to processing read request for disk files has been changed.

1.1 Mover request for work processing modifications.

Mover request processing for read_from_hsm work will be modified.

All manage_queue. Request_Queue.get... methods will be wrapped into the LibraryManagerMethods._get method to implement the following logic:

_get method parameters:

method – method to call to get a request from the request queue

arguments – arguments of the original get method

kw_arguments – key work arguments of the original get method.

Return value – request or None

```
1 IF request.work IS "read_from_hsm" THEN
  1.1 DO
    1.1.1 IF request.file IS part of package THEN
      1.1.1.1 IF request.package_id in work_at_movers_list THEN
        1.1.1.1.1 IF request.cache_status IS CACHED THEN RETURN request
        1.1.1.1.2 ELSE get next request using specified method
      1.1.1.2 ELSE RETURN request // no movers currently staging this package
    1.1.2 ELSE RETURN request // request is for the individual file
  1.2 WHILE request is NOT None
2 RETURN request
```

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2 Change Log.

V1	08/19/11	Sasha	Initial revision.
V2	08/19/11	Sasha	Changes after prototyping started.
V3	08/22/11	Sasha	Added method modifications to get queue information . Replaced the name of the list from delayed requests to requests on-hold
V4	08/29/11	Sasha	Removed on-hold functionality. Introduced manage_queue. Request_Queue.get...() method wrapper to select a request depending on whether it is part of a package or not.